The Choquet integral as a continuous certainty equivalent

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Abstract

The concept of a certainty equivalent is relevant in many fields when preferences over stochastic situations are considered (for example, stochastic cooperative games or risk attitudes in a multiperiod context). I present an axiomatization of the existence of a continuous certainty equivalent functional $\mathcal{C}$ for a total preorder $\precsim$ on the space of all nonnegative random variables on a common probability space which can be represented as the Choquet integral with respect to a concave probability distortion.

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